

Installation Requirements for EV Chargers

Master Requirement ELE103

Building Department: 604-990-2480, building@dnv.org

Purpose

The purpose of this requirement is to specify the application requirements for installation of electric vehicle chargers in existing single family and multi-family buildings.

Background

The rapid increase in electric vehicle ownership in BC has placed an increased demand for private charging infrastructure, creating challenges with the limited electrical service capacity. Existing multi-family buildings are not designed for EV chargers and may not be able to support the increased load. Challenges include locations within the building, the layout of infrastructure, and metering/paying for electricity.

Installing EV chargers adds extra load onto existing main services. The submission requirements below are intended to ensure the added electrical loads don't overload the main building service..

Requirements

All documents will be reviewed by an inspector before issuance.

Homeowner: Single Family Dwelling with no secondary suite

1. Load calculation.
2. Service upgrade or energy management *may* be required.

Contractor: Single Family Dwelling with secondary suite, and duplexes with or without secondary suite

1. Load calculation.
2. Service upgrade or Energy management *may* be required.

Contractor: Non-Single Family Dwelling, Apartments/Condos, Townhouses

1. Approval letter from Strata.
2. Provide EV ready plan. This will include a professional Engineer to provide a load calculation or minimum 12 months of hydro peak demand on main service showing feasibility and recommendations of an EVEMS if required. A load calculation for the suite panel is also required.
3. On completion of the installation, if an EVEMS is used, an operating permit will be required.

Related Requirements/Documents/Forms

Each application will be reviewed by the Electrical Department and additional information may be required prior to issuance. All forms required for electrical permits are available on dnv.org:

dnv.org/permits-licenses/electrical-permit

Additional information: pluginbc.ca